

WHAT IS CLAIMED IS:

1 1. An actuator for an automated transmission in a
2 motor vehicle drive train, comprising a central actuating
3 shaft with a shift finger and further comprising two
4 sleeves supported substantially concentrically on the
5 actuating shaft and arranged to be driven in mutually
6 independent rotation about the actuating shaft, wherein
7 two grooves of opposite helical pitch are arranged on the
8 actuating shaft and each of the sleeves has at least one
9 inward-directed guide pin engaging one of the grooves.

1 2. The actuator of claim 1, further comprising
2 two motors driving the independent rotation of the two
3 sleeves, each of the two sleeves being driven by one of
4 the two motors.

1 3. The actuator of claim 2, further comprising
2 two reduction gear mechanism, each of the two gear
3 mechanisms being interposed between one of the two sleeves
4 and one of the two motors.

1 4. The actuator of claim 1, wherein one of the

2 two grooves has a clockwise helical pitch and the other of
3 the two grooves has a counterclockwise helical pitch.

1 5. The actuator of claim 4, wherein the two
2 grooves (40, 41) are arranged in adjacent axial sections
3 of the shaft.

1 6. The actuator of claim 4, wherein at least
2 parts of the two grooves share an axial section of the
3 shaft.

1 7. An actuator for an automated transmission in a
2 motor vehicle drive train, comprising a central actuating
3 shaft with a shift finger and further comprising two
4 sleeves supported substantially concentrically on the
5 actuating shaft and arranged to be driven in mutually
6 independent rotation about the actuating shaft, wherein
7 the actuating shaft comprises at least two outward-
8 directed guide pins and each of the sleeves has an
9 internal groove, with the groove of one of the sleeves
10 having an opposite helical pitch from the groove of the
11 other sleeve, and wherein one of said guide pins engages
12 the groove in one of the sleeves and the other of the

13 guide pins engages the groove in the other of the sleeves.

1 8. The actuator of claim 7, further comprising
2 two motors driving the independent rotation of the two
3 sleeves, each of the two sleeves being driven by one of
4 the two motors.

1 9. The actuator of claim 8, further comprising
2 two reduction gear mechanism, each of the gear mechanisms
3 being interposed between one of the two sleeves and one of
4 the two motors.

1 10. The actuator of claim 7, wherein one of the
2 grooves has a clockwise helical pitch and the other of the
3 two grooves has a counterclockwise helical pitch.